Shine WebBox
User Manual

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1 Introduction

Shine WebBox is specially designed for solar power plant remote monitoring. While supporting both wired and wireless communication, Shine WebBox can simultaneously monitor, record and analyze inverter operating parameters real time with a maximum quantity of 50.

1.1 Interface

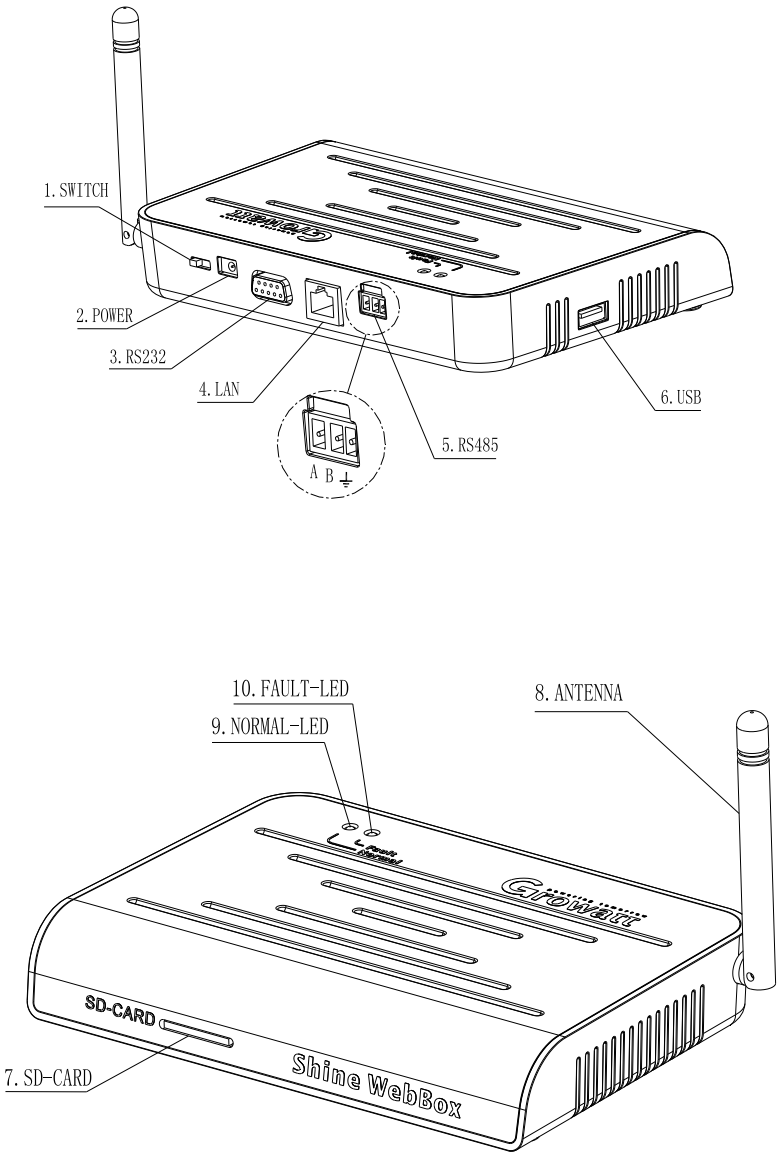


Figure 1-1-1

No.	Name	Description
1	Switch	Power Switch, Turn ON/OFF ShineWebBox
2	Power supply interface	Supply power to Shine WebBox
3	RS232 interface	Serial port
4	LAN interface	Connect Shine webBox with ShineServer in local area network(LAN)
5	RS485 interface	Connect inverters with RS485 cable
6	USB interface	Connect USB driver for firmware update
7	SD-CARD socket	Connect SD-CARD for data storage
8	ANTENNA	Receives wireless signal
9	NORMAL-LED	Refer to the LED status display section
10	FAULT-LED	Refer to the LED status display section

Table 1

1.2 LED status display

Red light	Green light	Meaning
●	●	Initialization
○	⊙	Searching inverters
○	◎	Standby
○	●	Normal operation
●	○	Plant has reported a fault or no SD card in Shine WebBox

Table 2

● LED ON
○ LED OFF
⊙ LED blinks slowly
◎ LED blinks fast

2 Shine WebBox Installation

2.1 Package list

Open Shine WebBox package, you will see the following items.

Items	Number
Shine WebBox	1
5V power adapter	1
Bracket	1
2G SD card	1
Plastic column	2
M3.5*20 screws	2
RS485 terminal	1

Table 3

2.2 Shine WebBox hung vertically

Operation steps as following

(1) Install the bracket to the vertical plane.

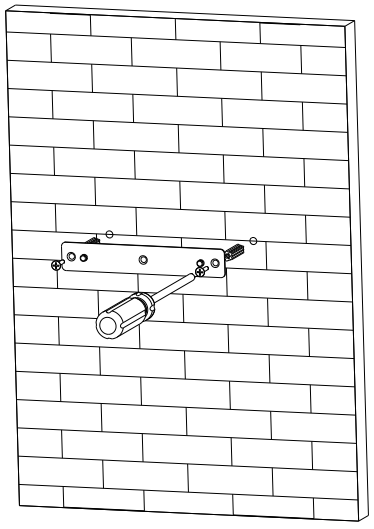


Figure 2-2-1

(2) Install Shine WebBox to the bracket.

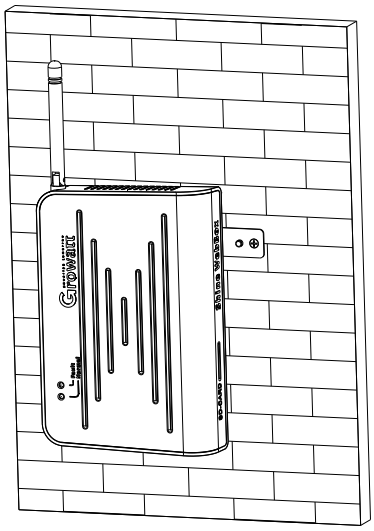


Figure 2-2-2

(3) After finishing installing, the Shine WebBox will be hung like the following figure.

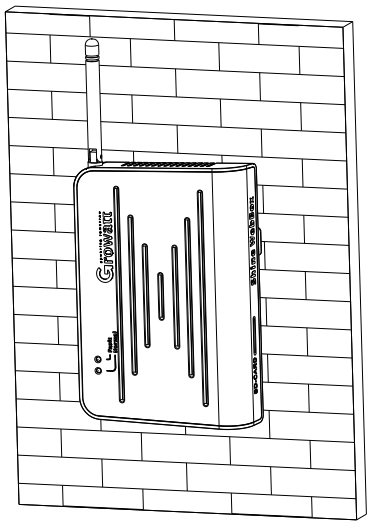


Figure 2-2-3

（4）Connect RS485 cable which is connected to inverters(Refer to 3.1.1) or connect wireless modules to inverters(Refer to 3.1.2).

（5）Connect network cable.

（6）Insert SD card before turning on Shine WebBox(if not ,SD card will not be read).

（7）Connect power adapter.

（8）Turn on power switch.

2.3 Shine WebBox Placed on plane

Operation steps as following

(1)Put Shine WebBox on plane， as following figure.

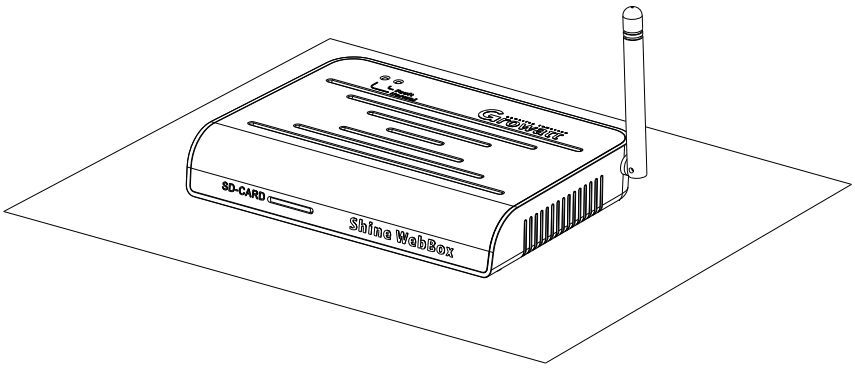


Figure 2-3-1

(2）Connect RS485 cable which is connected to inverters(Refer to 3.1.1) or connect wireless modules to inverters(Refer to 3.1.2).

（3）Connect network cable.

（4）Insert SD card before turning on Shine WebBox(if not ,SD card will not be read).

（5）Connect power adapter.

（6）Turn on power switch.

3 Operation instruction

3.1 Connection

Shine WebBox supports both wired and wireless communication.

3.1.1 Wired communication

Shine WebBox can monitor 32 inverters by RS485 simultaneously.

Please connect the Shine WebBox and inverter by RS485 cable as following figures.

Shine WebBox	Inverter
A	Terminal 2
B	Terminal 1
⏚	Null (no connection required)

Figure 3-1-1

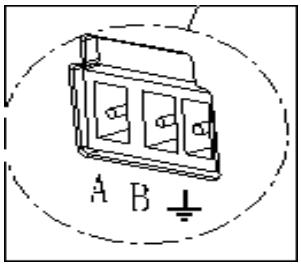


Figure 3-1-2

Figure 3-1-3

Communication address setting

Set each inverter communication address to be fixed address in sequence, ranging from 1 to 32. Please refer to Appendix A (communication address setting).

3.1.2 Wireless communication

Connect one Zigbee transmitter to each inverter through RS232 interface, and one Shine WebBox can monitor 30 inverters simultaneously. (Please refer to wireless adapter user manual to see the internal setting of wireless adapter)

Figure 3-1-4

3.1.3 Network diagram

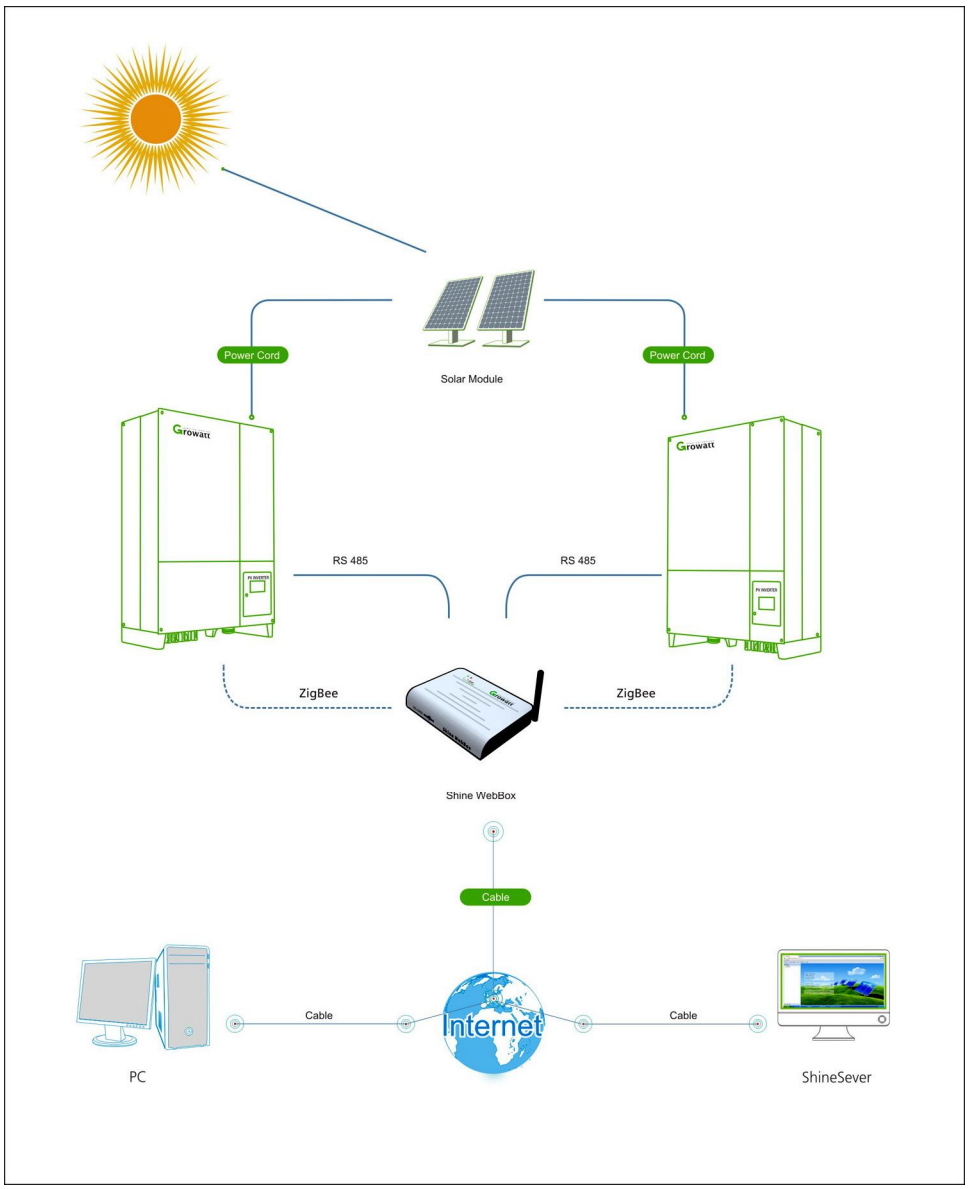


Figure 3-1-5

3.2 Shine Server Installation

Procedure

1. Contact Growatt for software “Shine Server”.

2. Double click the “ .exe“ file, then the following interface will appear as figure 3-2-1.

ShineNet Setup
Welcome to the ShineNet Setup Wizard
The Setup Wizard will allow you to change the way ShineNet features are installed on your computer or even to remove ShineNet from your computer. Click "Next" to continue or "Cancel" to exit the Setup Wizard.
< Back
Next >
Cancel

Figure 3-2-1

3. Click next, then shown as following figure 3-2-2.

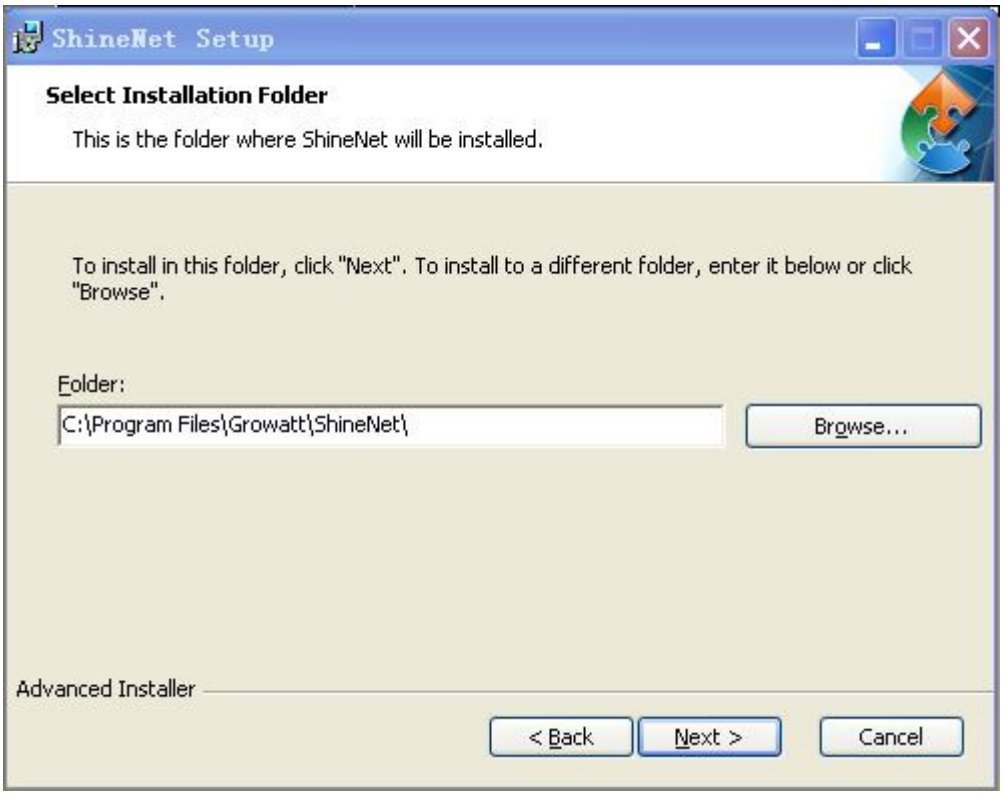

ShineNet Setup
Select Installation Folder
This is the folder where ShineNet will be installed.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\Growatt\ShineNet\
Browse...
Advanced Installer
< Back
Next >
Cancel

Figure 3-2-2

4. Click next, then shown as following figure 3-2-3.

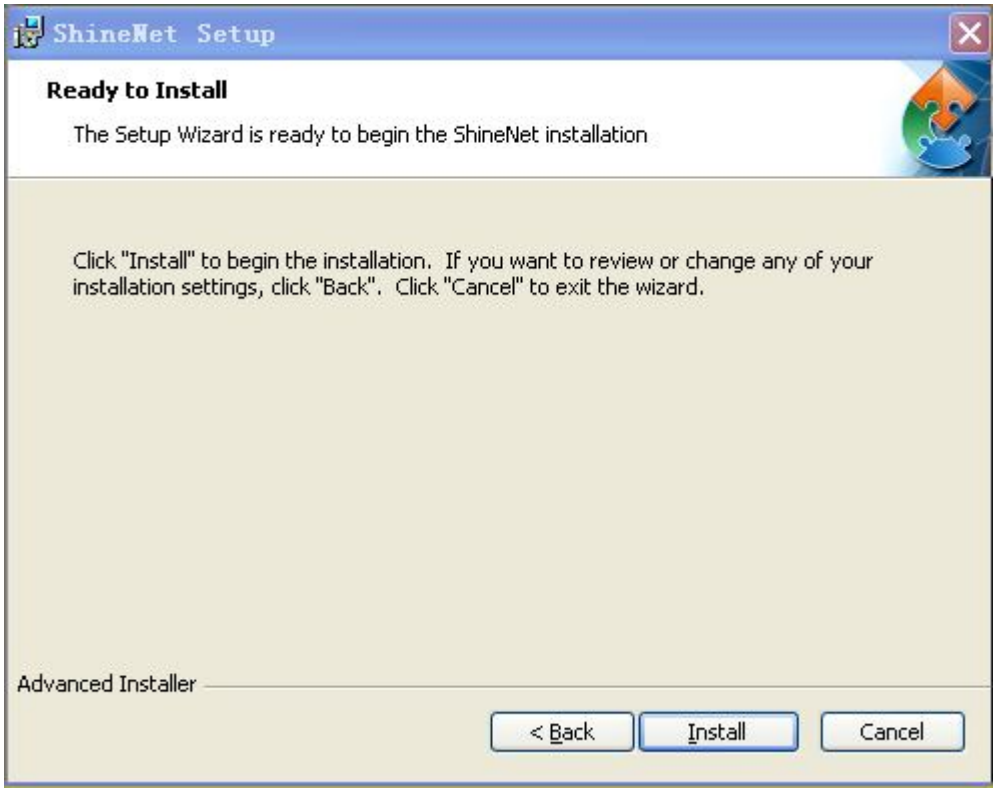

ShineNet Setup
Ready to Install
The Setup Wizard is ready to begin the ShineNet installation
Click "Install" to begin the installation. If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.
Advanced Installer
< Back
Install
Cancel

Figure 3-2-3

5. Click install, then shown as following figure 3-2-4.

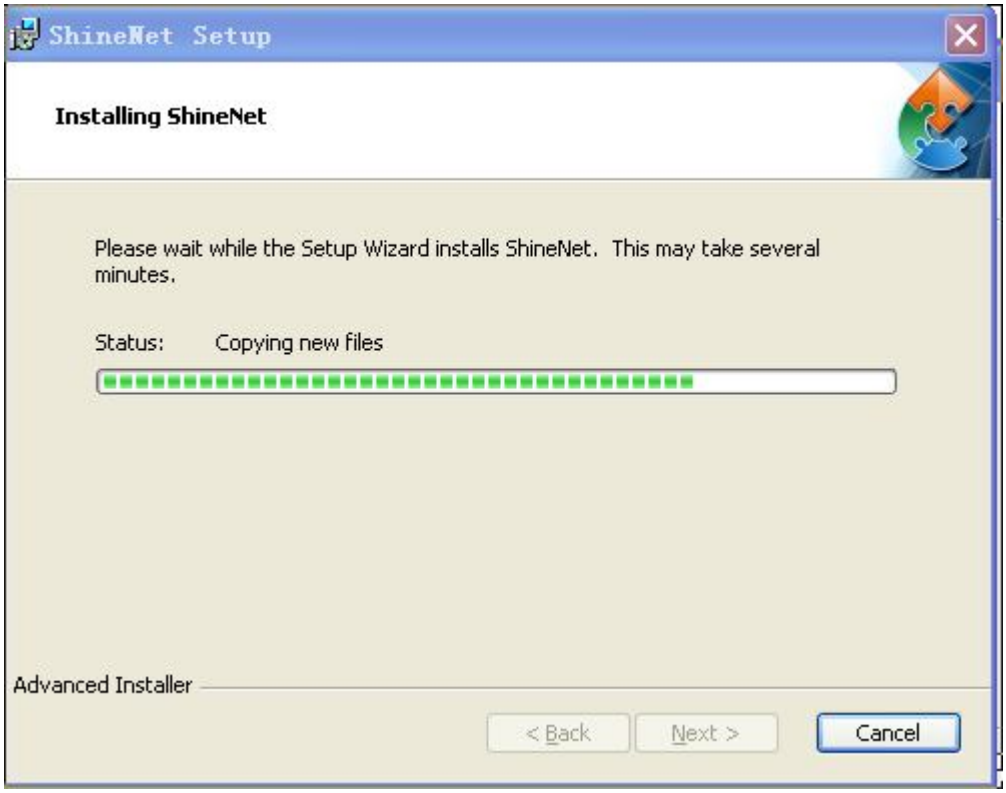

ShineNet Setup
Installing ShineNet
Please wait while the Setup Wizard installs ShineNet. This may take several minutes.
Status: Copying new files
Advanced Installer
< Back
Next >
Cancel

Figure 3-2-4

6. Click finish, and installation finished as figure 3-2-5.

Figure 3-2-5

3.3 Login

1. Connect Shine WebBox and the server with Shine Server in the same local area network (LAN).

2. Set IP address of the server to 192.168.1.74, as figure 3-3-1.

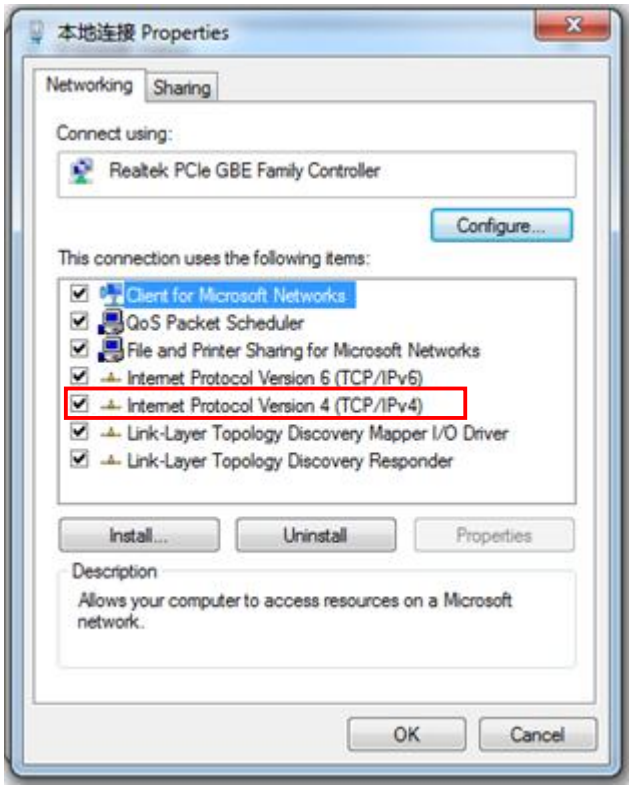


Figure 3-3-1

3. Run Shine Server as administrator. Shine Server icon will appear on system tray.

Figure 3-3-2

4. Right click the icon, and select “start server”.

Figure 3-3-3

5. Right click the icon again and select “open interface”; or input http://192.168.1.74:5678 in the browser.

Note: Please use Chrome browser for better performance.

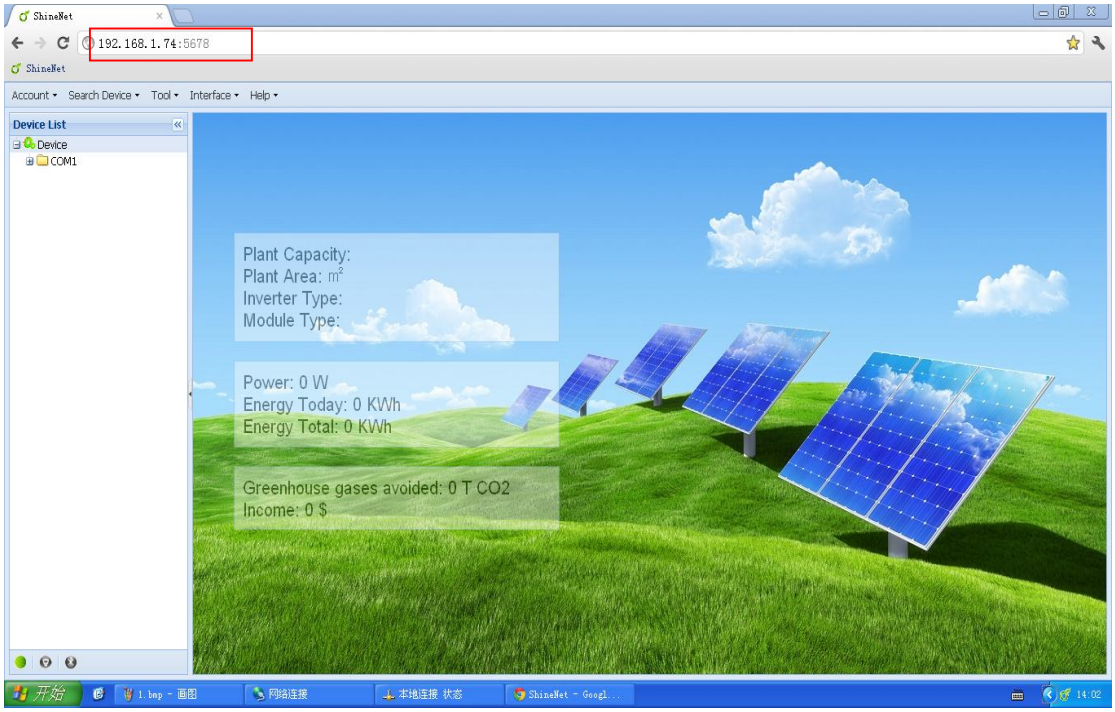


Figure 3-3-4

6. Click “Account” menu and select “Login”.

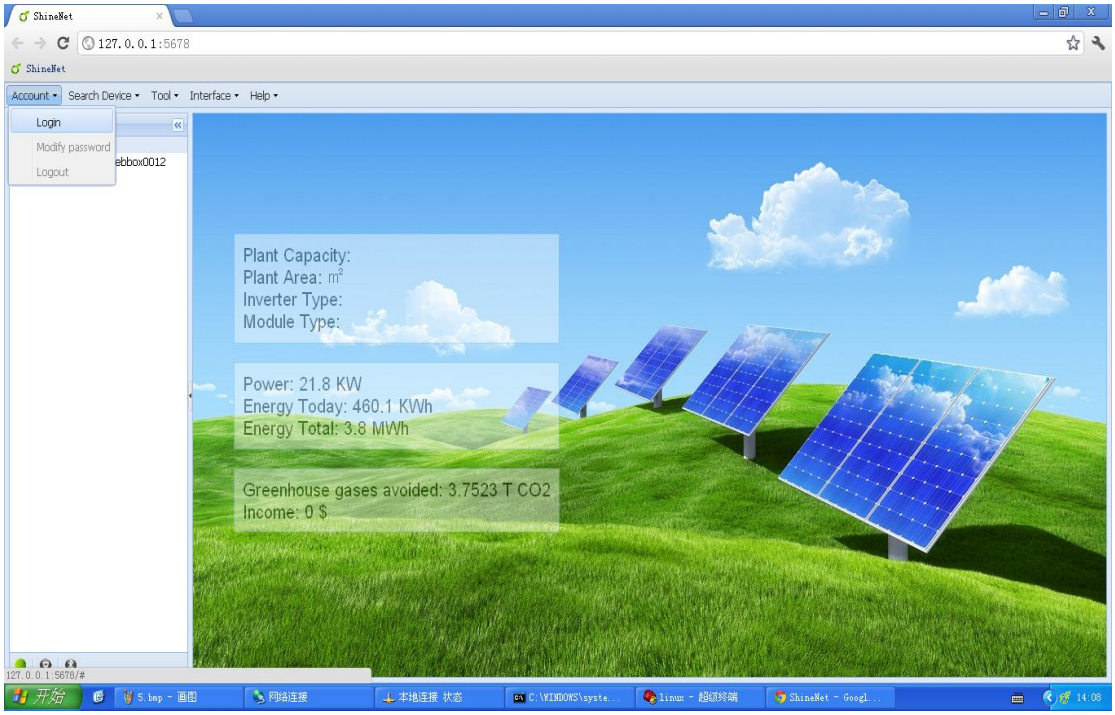


Figure 3-3-5

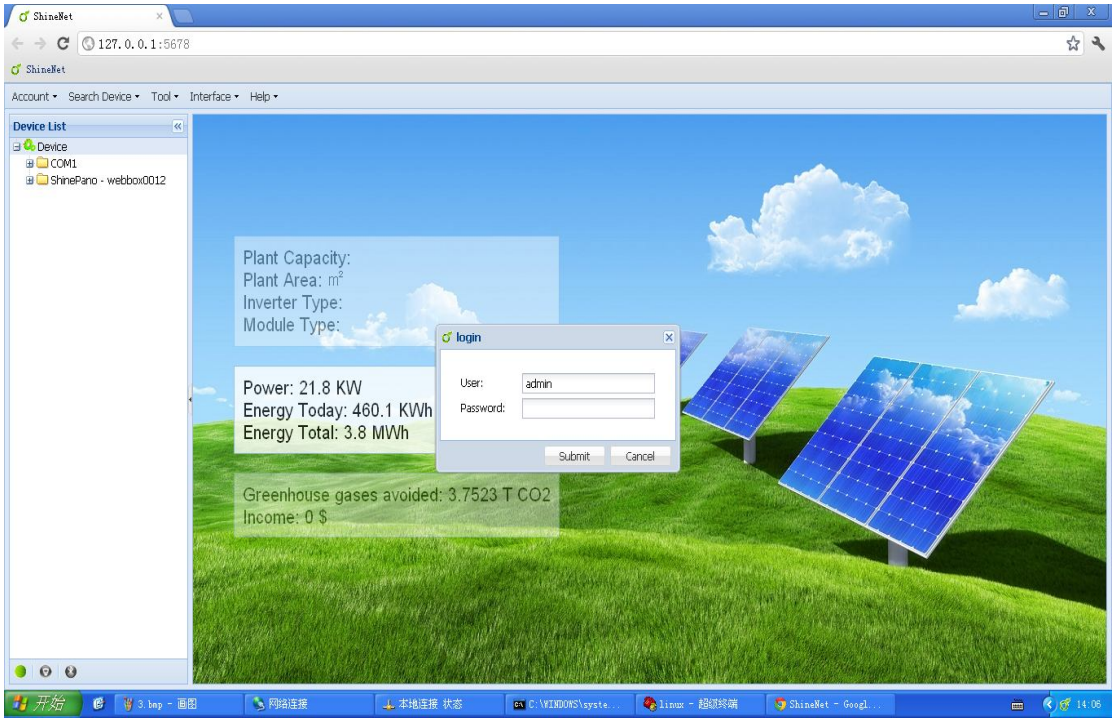


Figure 3-3-6

7. Input Password (Initial Password is 123456).

Note: Password can be modified after login successfully by clicking “Account” and selecting “Modify password”.

Figure 3-3-7

3.4 Server setting

1. After login successfully, single click “Interface” then “Plant Setting”, a following pop-up interface will appear as figure 3-4-1.

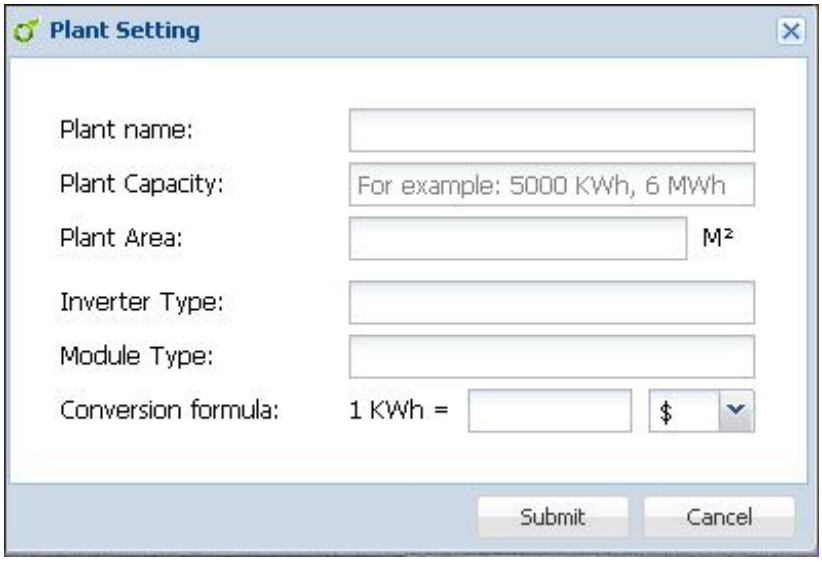


Figure 3-4-1

2. Enter the info you need in order, take the example of figure 3-4-2.

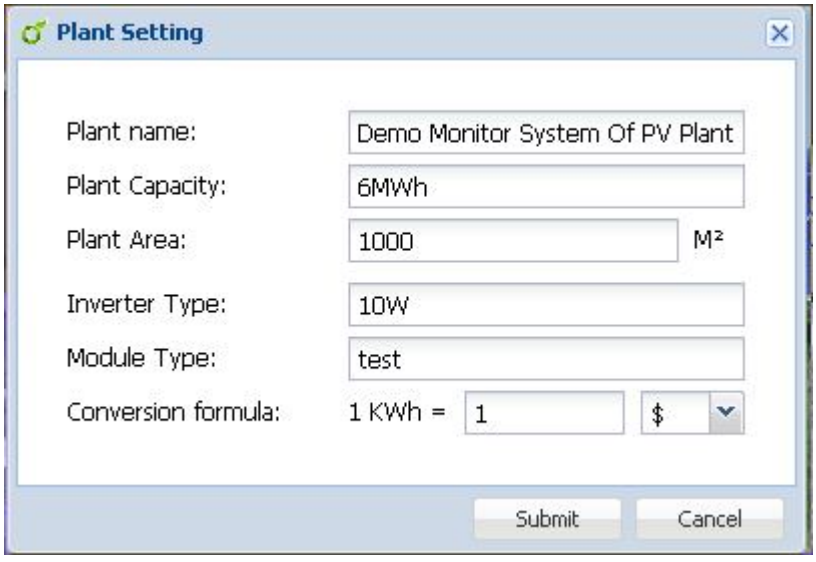


Figure 3-4-2

3. Single click “Submit”, the main interface will display as figure 3-4-3.

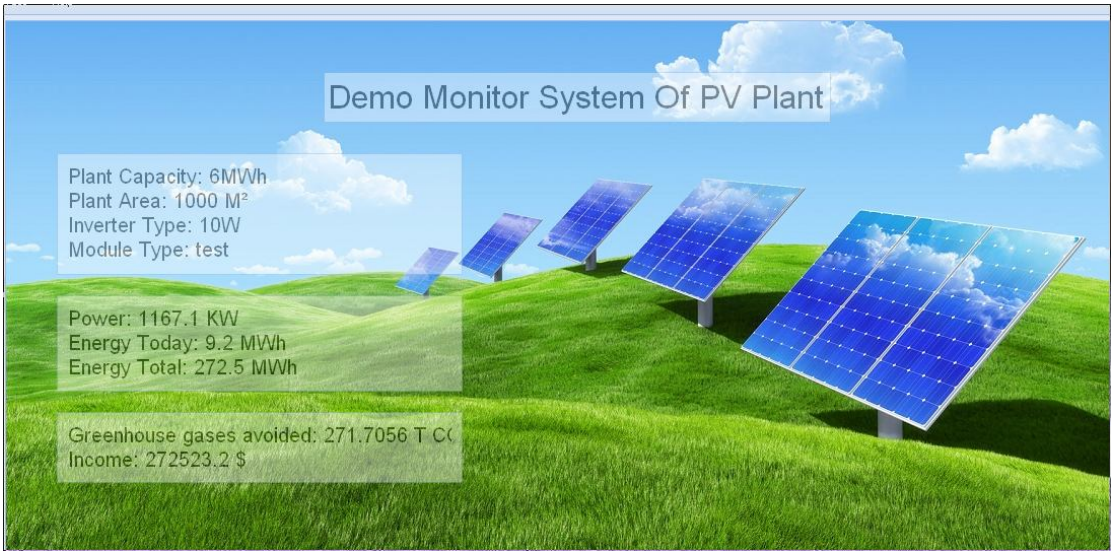


Figure 3-4-3

3.5 Tcp Setting

1. Single click “Search Device” then “Tcp setting”, a following pop-up interface will appear as figure 3-5-1.

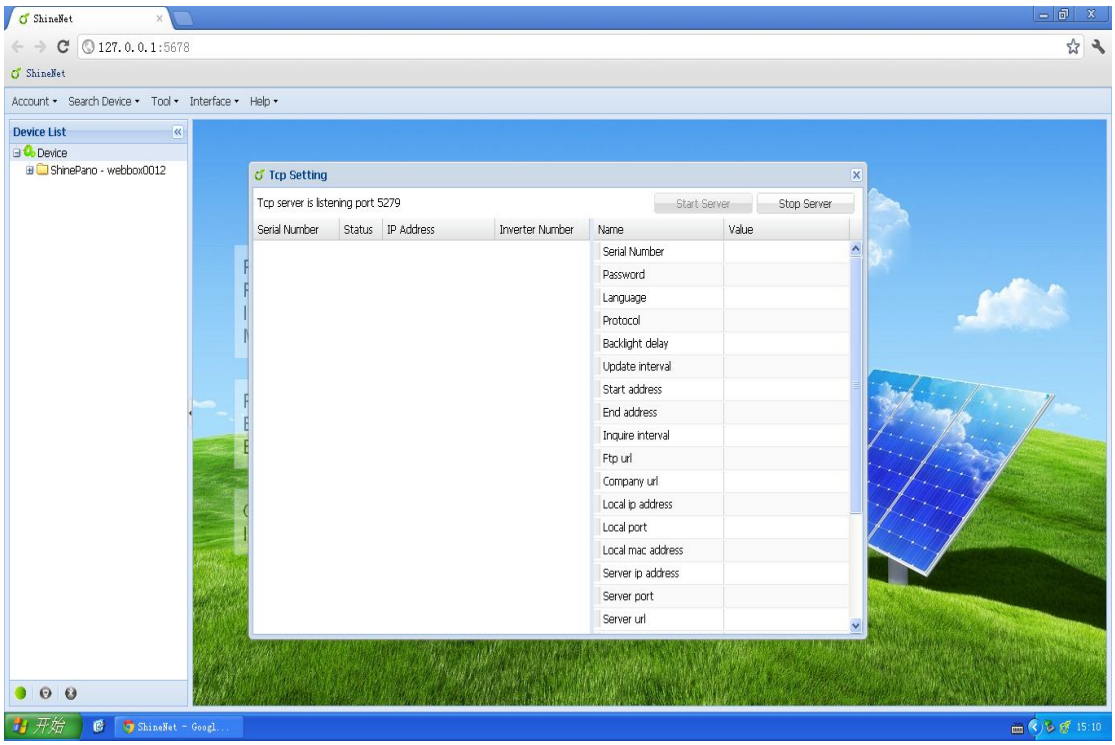


Figure 3-5-1

2. Single click “Start Server”, then click the list on the left side in Tcp Setting as figure 3-5-2.

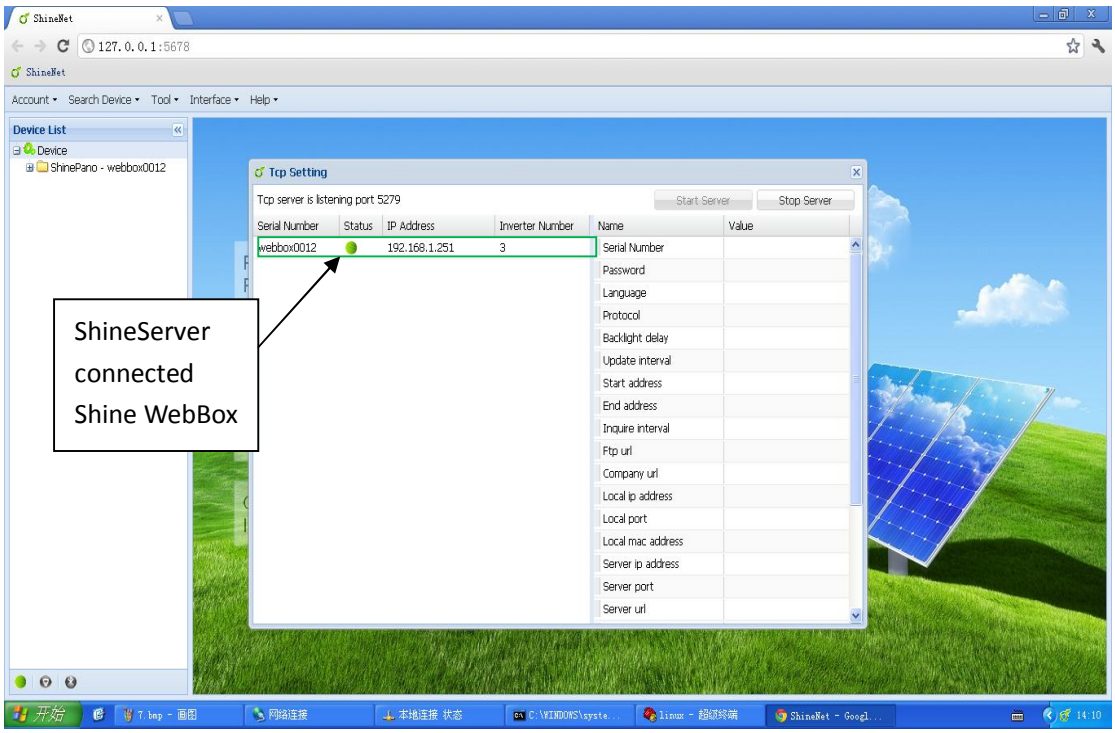


Figure 3-5-2

3. Single click Shine Server to connect Shine WebBox，then you will see parameter info of corresponding Shine WebBox as figure 3-5-3.

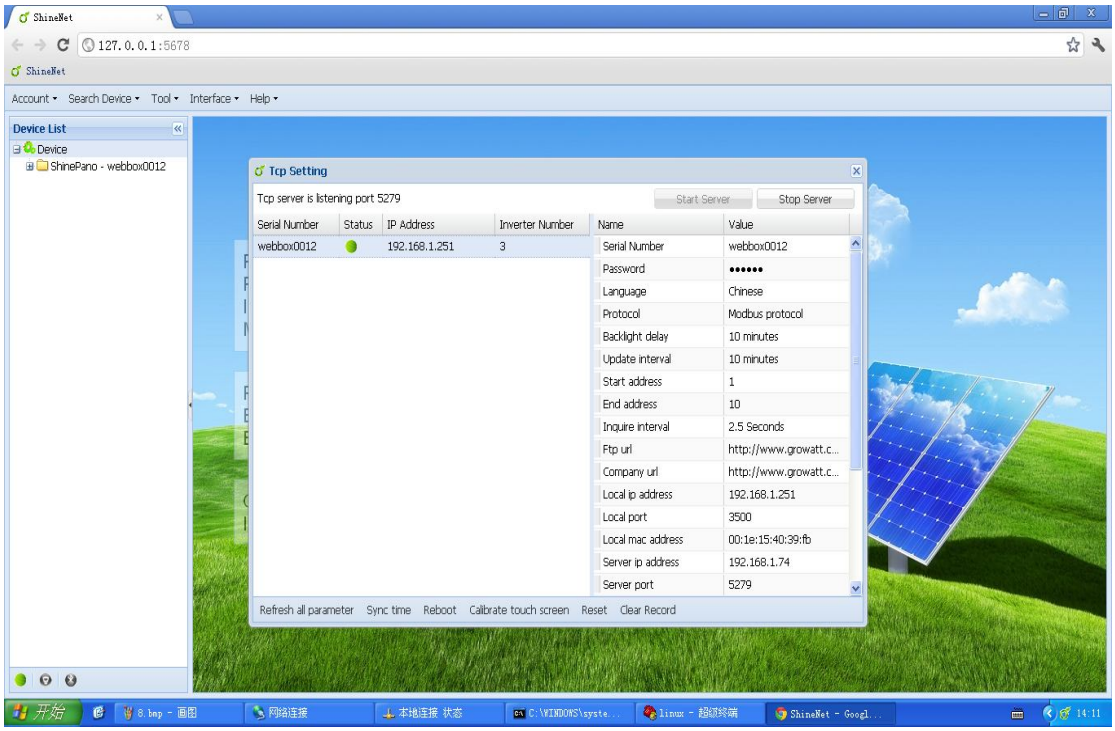


Figure 3-5-3

4. Internal parameter of Shine WebBox can be modified in this interface as figure 3-5-4.

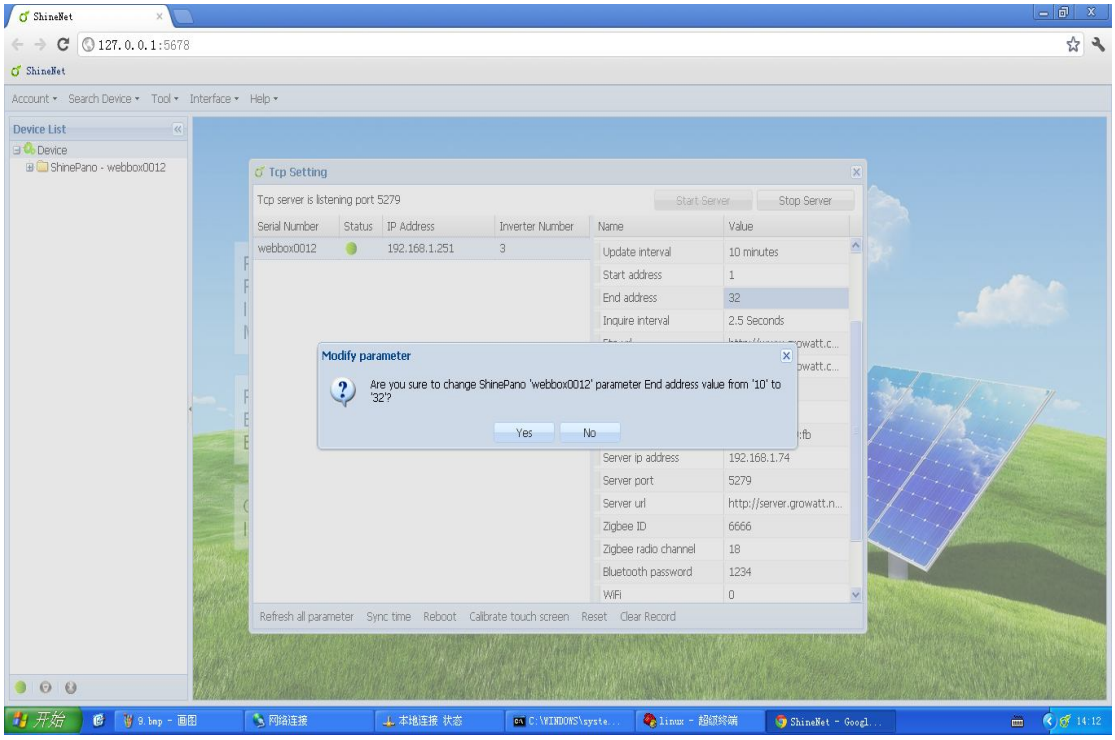


Figure 3-5-4

Remarks: the end address in above figure is modified from 10 to 32.

5. After selecting "YES", a message box will popup to show the setting is successful or not (as figure 3-5-5, set parameter successfully).

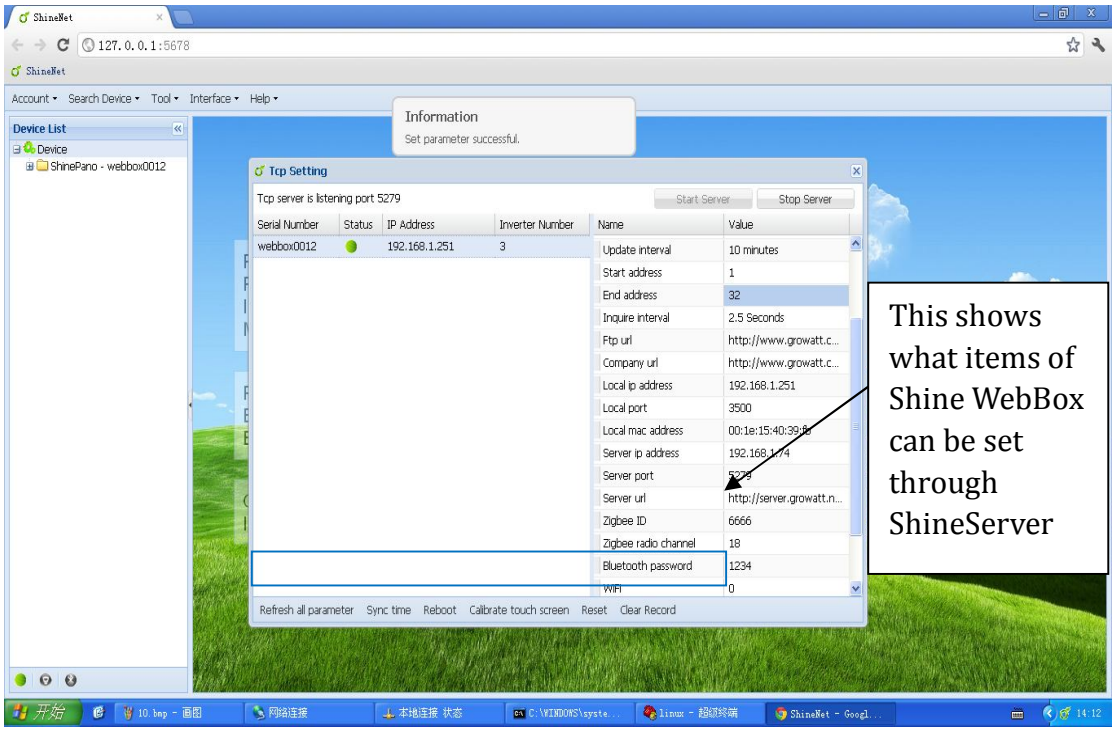


Figure 3-5-5

4. FAQ

1 .RS485&Zigbee can’t set up communication

Possible cause

（1）The COM address set in inverter is not fixed address.
（2）The address range in system setting of Shine WebBox is not right.
（3）RS485 cable is connected in a wrong way.
（4）ZIGBEE modules aren’t in the same network ID.

Solution

（1）Set COM address to fixed address.
（2）Shine WebBox initial address range must include addresses of all inverters.
（3）Connect RS485 cable in a right way.
（4）Set ZIGBEE modules in the same network ID.

2. Shine Server page can’t be opened

Possible cause

（1）“Start Server” at system tray doesn’t start.
（2）The IP address or port you visit is wrong.

Solution

（1） Start “start Server”.
（2）Enter the right IP address and port(the default IP address is 192.168.1.74,port is 5678,so you need to enter http://192.168.1.74:5678 into browser).

3. ShineServer can’t receive data

Possible cause

（1）Local area network(LAN) connection of Shine WebBox is not good.
（2）The IP address of the server is not matched with the IP address of Shine WebBox.
（3）ShineServer is not under the station of receiving data.

Solution

（1）Make the local area network(LAN) between Shine WebBox and ShineServer connect well.
（2）Set Shine WebBox address to ShineServer host address.
（3）Open “Start Server” in “Tcp setting” of ShineServer, then do visit.

4. Shine WebBox upgrading

（1）Shine WebBox adopts U disk to upgrade through USB interface, when insert the U disk to USB interface, Shine WebBox will automatically check if there is upgrade package in it.
（2）If an upgrade package is detected, it will upgrade automatically.
（3）After upgrading successfully, the buzzer will ring twice, Shine WebBox

will restart automatically. Please remember to take out the U disk, if not, Shine WebBox will upgrade repeatedly.

5. Modify port number

Find ShineServer installation path (the default is C:\Program Files\Growatt\Shine Server), open ShineServer folder, then config folder (open as notepad), the default is “server.port=5678”, the port “5678”can be modified to the port you want.

Appendix A

Communication address setting

1. Growatt single phase inverter

Applies to Growatt1500TL, Growatt2000TL, Growatt3000TL, Growatt4400TL, Growatt5000TL, Sungold1500TL, Sungold2000TL, Sungold3000TL, Sungold5000TL, Growatt3600MTL, Growatt4200MTL, Growatt5000MTL

Growatt1500TL-US, Growatt2000TL-US, Growatt3000TL-US, Growatt4400TL-US, Growatt5000TL-US, Growatt3600MTL-US, Growatt4200MTL-US, Growatt5000MTL-US.

1. Single knock on the inverter panel until it shows: COM Address. Please refer to the below picture.

(Growatt inverter COM Address was set to be Move as default)

2. Double knock on the inverter panel and the COM Address will be changed to be fixed COM Address (such as 01, 02 ……). The COM Address will be saved after the LCD turns dark.

   If you want to set the COM Address to be MOVE again, double knock on the inverter panel when the LCD display shows the COM Address.

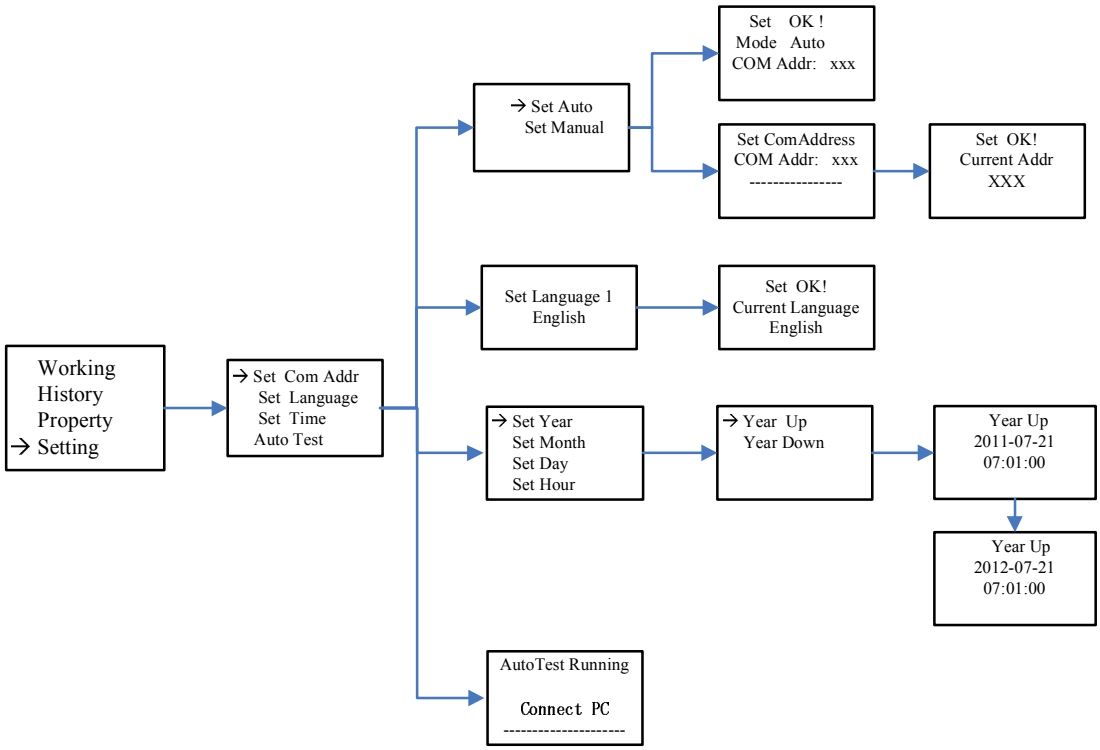
Note: Maximum COM Address is: 255. Address 126 is for broadcasting; don't set the COM Address to be 126.

2. Growatt three phase inverter

Growatt10000UE, Growatt12000UE, Growatt18000UE, Growatt20000UE

Growatt10000-US, Growatt12000-US, Growatt18000-US, Growatt20000-US

Please refer to the below graph:



Info:

Triple knock can get back to the previous level menu, double knock can enter into the next level menu, and single knock can move the pointer.

- Set COM Address to be MOVE(or auto)

Setting->Set COM addr->Set COM Auto, then double knock on the panel and LCD screen will display "Set OK, Mode Auto, COM addr: xxx".

- Set COM address to be fixed

Setting->Set COM addr->Set COM Manual, then double knock on the panel and enter the COM address setting mode. Single knock on the panel can change the value of COM Address and double knock will save changes, then LCD screen will display "Set Addr OK! Current Addr XXX".

Note: Maximum COM Address is: 255. Address 126 is for broadcasting; don't set the COM Address to be 126.

Appendix B Shine Webbox Factory Warranty

For Shine Webbox, you receive a Growatt factory warranty valid for 5 years from the date of purchase, and no more than 5 year and a half year from the date of delivery from Growatt New Energy Co. Ltd.

This warranty covers repair or replacement parts costs incurred during the agreed period

Excluded from warranty are damages due to:

• Breaking the product seal (opening the casing)

• Transport damage

• Incorrect installation or commissioning

• Failure to observe the user manual, the installation guide, and the maintenance regulations

• Unauthorized Modifications, changes, or attempted repairs

• Incorrect use or inappropriate operation

• Failure to observe the applicable safety regulations

• Force majeure (e.g., lightning, overvoltage, storm, fire)

Further-reaching or additional claims due to direct or indirect damage, especially claims for compensation for damages due to loss of profits or due to costs arising from disassembly and mounting, are excluded if no legally mandatory liability applies.

Warranty condition

If a device becomes defective during the agreed Growatt factory warranty period and provided that it will not be impossible or unreasonable, the device will be, as selected by Growatt,

• repaired by Growatt, or

• repaired on-site, or

• exchanged for a replacement device of equivalent value according to model and age.

In the latter case, the remainder of the warranty entitlement will be transferred to the replacement device. In this case, you do not receive a new certificate since your entitlement is documented at Growatt.

For determination of warranty eligibility, you may need to present a copy of the purchase receipt, or a copy of the *Extension Warranty Card*, and the serial number of the unit. Otherwise, Growatt is entitled to refuse to provide warranty services.

Extension warranty

Growatt provides 5 years extension warranty for Shine Webbox.
For warranty extension details or warranty extension please contact service@ginverter.com, customers need to fill in a warranty extension card and send to Growatt by email or fax, we will stamp company seal to valid it and then send back to customers.

5 Contact

If you have any inquiry or technical problems concerning Shine Webbox, contact your installer or Growatt.

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Website: www. ginverter.com